

DETAILED ACTION

Response to Amendment

1. This office action is in reply to Applicant's Response dated July 1, 2010.
2. **Claims 1, 3, 5-10** are in the condition for allowance.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jack Schwartz (Reg. No. 34,721) on August 25, 2010.

4. **Claims 1 and 4** have been amended as follows:

A). Claim 1 has been replaced with the following "...Method of selecting seeds from a set of key images of a video sequence for the grouping of key images of prevalent shots of the video sequence for use in interactive navigation of the video sequence, comprising the following steps :

- random drawing of p candidates from the set of key images by automatically extracting shots of interest, p being calculated to increase the probability of drawing a key image of a prevalent shot,
- calculation of a cost C for each candidate, dependent on the distance from the

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key images of the set to that of the candidate, the distance relating to signatures,

- selection of the candidate minimizing the cost C ,
 - determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T ,
 - determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset,
 - deletion of the key images of the subset to form a new set of key images for at least one new random draw and determination of a new seed according to the previous 5 steps in order to refine the grouping of key images to those of interest for the interactive navigation of the video sequence,
- wherein the cost C is dependent on the quadratic distances between the signature of the candidate and those of the key images of the subset and in that T is the standard deviation of the distribution of the distances of the key images of the set from the candidate and is dependent on the distribution of the distances of the key images of the set from the candidate.

B). Claim 4 is cancelled.

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance:

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Independent **claims 1** recites "... - random drawing of p candidates from the set of key images by automatically extracting shots of interest, p being calculated to increase the probability of drawing a key image of a prevalent shot,

- calculation of a cost C for each candidate, dependent on the distance from the key images of the set to that of the candidate, the distance relating to signatures,
- selection of the candidate minimizing the cost C ,
- determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T ,
- determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset,
- deletion of the key images of the subset to form a new set of key images for at least one new random draw and determination of a new seed according to the previous 5 steps in order to refine the grouping of key images to those of interest for the interactive navigation of the video sequence,

wherein the cost C is dependent on the quadratic distances between the signature of the candidate and those of the key images of the subset and in that T is the standard deviation of the distribution of the distances of the key images of the set from the candidate and is dependent on the distribution of the distances of the key images of the set from the candidate..." which are feature that are not anticipated nor obvious over the art of record. The other claims are dependent on claim 1. Therefore, all the pending **claims 1, 3, 5-10** are in the condition for the allowance.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE-YONG KIM whose telephone number is (571)270-3669. The examiner can normally be reached on Monday-Thursday, 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HEE-YONG KIM/
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Primary Examiner, Art Unit 2621

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